Samuel J. Simonson
Lorson Technologies LLC
P.O.Box 389
Huntington, IN 46750

Dear Samuel J. Simonson:

Re: Exempt Construction and Operation Status,
069-12611-00062

The application from Lorson Technologies LLC, received on August 16, 2000, has been reviewed. Based on the data submitted and the provisions in 326 IAC 2-1.1-3, it has been determined that the following carbon steel coating plant, to be located at 1625 Riverfork Drive East, Huntington, IN 46750, is classified as exempt from air pollution permit requirements:

(a) One (1) natural gas fired low NOx boiler, with a maximum capacity of 10.5 million BTU/hour.
(b) One (1) natural gas fired burner box, with a maximum capacity of 3 million BTU/hour.
(c) One (1) metal jacket tank, with a maximum 10000 units/hour exhausting to stack 02.
(d) Two (2) natural gas fired make-up air system, with a maximum capacity of 3 million BTU/hour and 1 million BTU/hour.

The following conditions shall be applicable:

(1) Pursuant to 326 IAC 5-1-2 (Opacity Limitations) except as provided in 326 IAC 5-1-3 (Temporary Exemptions), opacity shall meet the following:

(a) Opacity shall not exceed an average of forty percent (40%) in any one (1) six (6) minute averaging period as determined in 326 IAC 5-1-4.

(b) Opacity shall not exceed sixty percent (60%) for more than a cumulative total of 15 minutes (60 readings) in a 6-hour period as measured according to 40 CFR 60, Appendix A, Method 9 or fifteen (15) one (1) minute nonoverlapping integrated averages for a continuous opacity monitor in a six (6) hour period.

(2) Pursuant to 326 IAC 12 and 40 CFR § 60.40c, Subpart Dc - Standards of Performance for Small Industrial-Commercial-Institutional Steam Generating Units. This rule applies to each steam generating unit for which construction, reconstruction is commenced after June 9, 1989 and that has a maximum design heat input capacity of 100 million British Thermal Units per hour (mmBtu/hr) or less, but greater than 10 mmBtu/hr.

The proposed one (1) 10.5 mmBtu/hr boiler is subject to the § 60.48c Subsections (a), (g) and (i) of this NSPS.

(a) Under Subsection (a) of § 60.48c, the owner/operator of the boiler shall submit notification of the date of construction, or reconstruction, anticipated startup and actual startup as provided by § 60.7 of this part. The notification shall include:

(1) The design heat input capacity of the boiler and identification of the fuel to be combusted; and

(2) the annual capacity factor at which the owner/operator anticipates operating the boiler, based on all fuels fired and based on individual fuel fired.

(b) Under Subsection (g) § 60.48c, the owner/operator of the boiler shall maintain records of the amounts of fuel combusted during each month.

(c) Under Subsection (i) § 60.48c, all records required in this Section shall be maintained by the owner or operator of the boiler for a period of two (2) years following the date of such record.

(3) Pursuant to 326 IAC 6-2-4 (Particulate emission limitations for sources of indirect heating), the particulate emissions from indirect heating facilities shall be limited to 0.6 pounds of particulate matter per million BTU heat input as determined by the following equation:

$$Pt = \frac{1.09}{Q^{0.26}}$$

Where: Pt = Pounds of particulate matter emitted per million Btu (lb/mmBtu) input.
Q = Total source maximum operating capacity rating in million Btu per hour (mmBtu/hr) heat input. The maximum operating capacity rating is defined as the maximum capacity at which the facility is operated or the nameplate capacity, whichever is specified in the facility's permit application, except when some lower capacity is contained in the facility's operation permit; in which case, the capacity specified in the operation permit shall be used.

(4) Pursuant to 326 IAC 8-2-9 (Miscellaneous Metal Coating Operations), the volatile organic compound (VOC) content of coating delivered to the Metal Jacket tank shall be limited to 3 pounds of VOCs per gallon of coating less water.

Solvent sprayed from application equipment during cleanup or color changes shall be directed into containers. Such containers shall be closed as soon as such solvent spraying is complete, and the waste solvent shall be disposed of in such a manner that evaporation is minimized.

Based on the MSDS submitted by the source and calculations made, the spray booth is in compliance with this requirement.

This exemption is the first air approval issued to this source.

An application or notification shall be submitted in accordance with 326 IAC 2 to the Office of Air Management (OAM) if the source proposes to construct new emission units, modify existing emission units, or otherwise modify the source.

Sincerely,

Paul Dubenetzky, Chief
Permits Branch
Office of Air Management

GS

cc: File - Huntington County
Huntington County Health Department
Air Compliance – Ryan Hillman
Permit Tracking - Janet Mobley
Technical Support and Modeling - Michele Boner
Compliance Data Section - Karen Nowak

Indiana Department of Environmental Management
Office of Air Management

Technical Support Document (TSD) for a Exemption

Source Background and Description

Source Name:	**Lorson Technologies LLC**
Source Location:	**1625 Riverfork Drive East, Huntington IN 46750**
County:	**Huntington**
SIC Code:	**3471, 3479**
Operation Permit No.:	**069-12611-00062**
Permit Reviewer:	**Gurinder Saini**

The Office of Air Management (OAM) has reviewed an application from Lorson Technologies relating to the construction and operation of carbon steel coating plant.

Permitted Emission Units and Pollution Control Equipment

The source consists of the following permitted emission units and pollution control devices:

(a) One (1) natural gas fired low NOx boiler, with a maximum capacity of 10.5 million BTU/hour.
(b) One (1) natural gas fired burner box, with a maximum capacity of 3 million BTU/hour.
(c) One (1) metal jacket tank, with a maximum 10000 units/hour exhausting to stack 02.
(d) Two (2) natural gas fired make-up air system, with a maximum capacity of 3 million BTU/hour and 1 million BTU/hour.

Unpermitted Emission Units and Pollution Control Equipment

There are no unpermitted facilities operating at this source during this review process.

Existing Approvals

This is the first air approval for this source.

Enforcement Issue

There are no enforcement actions pending.

Stack Summary

Stack ID	Operation	Height (feet)	Diameter (feet)	Flow Rate (acfm)	Temperature (^{0}F)
02	metal jacket tank	31	1	4500	75

Recommendation

The staff recommends to the Commissioner that the construction and operation be approved. This recommendation is based on the following facts and conditions:

Unless otherwise stated, information used in this review was derived from the application and additional information submitted by the applicant.

A complete application for the purposes of this review was received on August 16, 2000.

Emission Calculations

See Appendix A page 1 and 2 of this document for detailed emissions calculations.

Potential To Emit (of Source or Revision) Before Controls

Pursuant to 326 IAC 2-1.1-1(16), Potential to Emit is defined as Athe maximum capacity of a stationary source or emissions unit to emit any air pollutant under its physical and operational design. Any physical or operational limitation on the capacity of a source to emit an air pollutant, including air pollution control equipment and restrictions on hours of operation or type or amount of material combusted, stored, or processed shall be treated as part of its design if the limitation is enforceable by the U. S. EPA, the department, or the appropriate local air pollution control agency.@

Pollutant	Potential To Emit (tons/year)
PM	0.1
PM-10	0.6
SO_2	-
VOC	6.7
CO	6.4
NO_x	7.7

(a) The potential to emit (as defined in 326 IAC 2-7-1(29)) of any criteria pollutant is less than 10 tons per year. Therefore, the source is subject to the provisions of 326 IAC 2-1.1-3.

(b) Fugitive Emissions
Since this type of operation is not one of the twenty-eight (28) listed source categories under 326 IAC 2-2 and since there are no applicable New Source Performance Standards that were in effect on August 7, 1980, the fugitive particulate matter (PM) and volatile organic compound (VOC) emissions are not counted toward determination of PSD and Emission Offset applicability.

County Attainment Status

The source is located in Huntington County.

Pollutant	Status **(attainment, maintenance attainment, or unclassifiable; severe, moderate, or marginal nonattainment)**
PM-10	**Attainment**
SO_2	**Attainment**
NO_2	**Attainment**
Ozone	**Attainment**
CO	**Attainment**
Lead	**Attainment**

(a) Volatile organic compounds (VOC) and oxides of nitrogen (NOx) are precursors for the formation of ozone. Therefore, VOC emissions are considered when evaluating the rule applicability relating to the ozone standards. Huntington County has been designated as attainment or unclassifiable for ozone. Therefore, VOC and NOx emissions were reviewed pursuant to the requirements for Prevention of Significant Deterioration (PSD), 326 IAC 2-2 and 40 CFR 52.21.

(b) Huntington County has been classified as attainment or unclassifiable for all criteria pollutants. Therefore, these emissions were reviewed pursuant to the requirements for Prevention of Significant Deterioration (PSD), 326 IAC 2-2 and 40 CFR 52.21.

Source Status

New Source PSD Definition (emissions after controls, based on 8,760 hours of operation per year at rated capacity and/ or as otherwise limited):

Pollutant	Emissions (ton/yr)
PM	0.1
PM10	0.6
SO_2	-
VOC	6.7
CO	6.4
NO_x	7.7
Single HAP	-
Combination HAPs	-

(a) This new source is **not** a major stationary source because no attainment pollutant is emitted at a rate of 250 tons per year or greater and it is not in one of the 28 listed source categories. Therefore, pursuant to 326 IAC 2-2, and 40 CFR 52.21, the PSD requirements do not apply.

Part 70 Permit Determination

326 IAC 2-7 (Part 70 Permit Program)

This new source is not subject to the Part 70 Permit requirements because the potential to emit (PTE) of:

(a) each criteria pollutant is less than 100 tons per year,
(b) a single hazardous air pollutant (HAP) is less than 10 tons per year, and
(c) any combination of HAPs is less than 25 tons/year.

This is the first air approval issued to this source.

Federal Rule Applicability

(a) The natural gas fired boiler is subject to the New Source Performance Standard, 326 IAC 12, (40 CFR 60.40c, Subpart Dc).

40 CFR § 60.40c, Subpart Dc - Standards of Performance for Small Industrial-Commercial-Institutional Steam Generating Units. This rule applies to each steam generating unit for which construction, reconstruction is commenced after June 9, 1989 and that has a maximum design heat input capacity of 100 million British Thermal Units per hour (mmBtu/hr) or less, but greater than 10 mmBtu/hr.

The proposed one (1) 10.5 mmBtu/hr boiler is subject to the § 60.48c Subsections (a), (g) and (i) of this NSPS.

(a) Under Subsection (a) of § 60.48c, the owner/operator of the boiler shall submit notification of the date of construction, or reconstruction, anticipated startup and actual startup as provided by § 60.7 of this part. The notification shall include:

(1) The design heat input capacity of the boiler and identification of the fuel to be combusted; and

(2) the annual capacity factor at which the owner/operator anticipates operating the boiler, based on all fuels fired and based on individual fuel fired.

(b) Under Subsection (g) § 60.48c, the owner/operator of the boiler shall maintain records of the amounts of fuel combusted during each month.

(c) Under Subsection (i) § 60.48c, all records required in this Section shall be maintained by the owner or operator of the boiler for a period of two (2) years following the date of such record.

(b) There are no other New Source Performance Standards (NSPS)(326 IAC 12 and 40 CFR Part 60) applicable to this source.

(c) There are no National Emission Standards for Hazardous Air Pollutants (NESHAPs)(326 IAC 14 and 40 CFR Part 63) applicable to this source.

State Rule Applicability - Entire Source

326 IAC 2-6 (Emission Reporting)

This source is located in Huntington county and the potential to emit any criteria pollutant is less than one hundred (100) tons per year. Therefore, 326 IAC 2-6 does not apply.

326 IAC 5-1 (Visible Emissions Limitations)

Pursuant to 326 IAC 5-1-2 (Opacity Limitations), except as provided in 326 IAC 5-1-3 (Temporary Exemptions), opacity shall meet the following, unless otherwise stated in this permit:

(a) Opacity shall not exceed an average of forty percent (40%) any one (1) six (6) minute averaging period as determined in 326 IAC 5-1-4.

(b) Opacity shall not exceed sixty percent (60%) for more than a cumulative total of fifteen (15) minutes (sixty (60) readings) as measured according to 40 CFR 60, Appendix A, Method 9 or fifteen (15) one (1) minute nonoverlapping integrated averages for a continuous opacity monitor) in a six (6) hour period.

State Rule Applicability - Individual Facilities

326 IAC 2-4.1 (Major Sources of Hazardous Air Pollutants (HAP))

The operation of carbon steel coating will emit less than 10 tons per year of a single HAP or 25 tons per year of a combination of HAPs. Therefore, 326 IAC 2-4.1 does not apply.

326 IAC 6-2-4 (Particulate emission limitations for sources of indirect heating)

Pursuant to 326 IAC 6-2-4 (Particulate emission limitations for sources of indirect heating), the particulate emissions from indirect heating facilities shall be limited to 0.6 pounds of particulate matter per million BTU heat input as determined by the following equation:

$$Pt = \frac{1.09}{Q^{0.26}}$$

Where: Pt = Pounds of particulate matter emitted per million Btu (lb/mmBtu) input.
Q = Total source maximum operating capacity rating in million Btu per hour (mmBtu/hr) heat input. The maximum operating capacity rating is defined as the maximum capacity at which the facility is operated or the nameplate capacity, whichever is specified in the facility's permit application, except when some lower capacity is contained in the facility's operation permit; in which case, the capacity specified in the operation permit shall be used.

326 IAC 8-2-9 (Miscellaneous Metal Coating)

Pursuant to 326 IAC 8-2-9 (Miscellaneous Metal Coating Operations), the volatile organic compound (VOC) content of coating delivered to the Metal Jacket tank shall be limited to 3 pounds of VOCs per gallon of coating less water.

Solvent sprayed from application equipment during cleanup or color changes shall be directed into containers. Such containers shall be closed as soon as such solvent spraying is complete, and the waste solvent shall be disposed of in such a manner that evaporation is minimized.

Based on the MSDS submitted by the source and calculations made, the spray booth is in compliance with this requirement.

Conclusion

The construction and operation of this carbon steel coating plant shall be subject to the conditions of the attached proposed exemption 069-12611-00062.

Appendix A: Emissions Calculations
VOC and Particulate
From Surface Coating Operations

Company Name: Lorson Technologies LLC
Address City IN Zip: 1625 Riverfork Drive East, Huntigton IN 46750
CP: 069-12611
Plt ID: 069-00062
Reviewer: Gurinder Saini
Date: ################

Material	Density (Lb/Gal)	Weight % Volatile (H20 & Organics)	Weight % Water	Weight % Organics	Volume % Water	Volume % Non-Volatiles (solids)	Gal of Mat. (gal/unit)	Maximum (unit/hour)	Pounds VOC per gallon of coating less water	Pounds VOC per gallon of coating	Potential VOC pounds per hour	Potential VOC pounds per day	Potential VOC tons per year	Particulate Potential (ton/yr)	lb VOC/gal solids	Transfer Efficiency
E0942	8.5	88.00%	87.1%	0.9%	88.4%	10.00%	0.00200	10000.000	0.66	0.08	1.53	36.72	6.70	0.00	0.77	100%

State Potential Emissions **Add worst case coating to all solvents** **1.53** **36.72** **6.70** **0.00**

METHODOLOGY

Pounds of VOC per Gallon Coating less Water = (Density (lb/gal) * Weight % Organics) / (1-Volume % water)
Pounds of VOC per Gallon Coating = (Density (lb/gal) * Weight % Organics)
Potential VOC Pounds per Hour = Pounds of VOC per Gallon coating (lb/gal) * Gal of Material (gal/unit) * Maximum (units/hr)
Potential VOC Pounds per Day = Pounds of VOC per Gallon coating (lb/gal) * Gal of Material (gal/unit) * Maximum (units/hr) * (24 hr/day)
Potential VOC Tons per Year = Pounds of VOC per Gallon coating (lb/gal) * Gal of Material (gal/unit) * Maximum (units/hr) * (8760 hr/yr) * (1 ton/2000 lbs)
Particulate Potential Tons per Year = (units/hour) * (gal/unit) * (lbs/gal) * (1- Weight % Volatiles) * (1-Transfer efficiency) *(8760 hrs/yr) *(1 ton/2000 lbs)
Pounds VOC per Gallon of Solids = (Density (lbs/gal) * Weight % organics) / (Volume % solids)
Total = Worst Coating + Sum of all solvents used

Appendix A: Emissions Calculations
Natural Gas Combustion Only
MM BTU/HR <100
Small Industrial Boiler

Company Name: **Lorson Technologies LLC**
Address City IN Zip: **1625 Riverfork Drive East, Huntigton IN 46750**
CP: **069-12611**
Plt ID: **069-00062**
Reviewer: Gurinder Saini
Date: 30-Aug-00

Heat Input Capacity MMBtu/hr	Potential Throughput MMCF/yr
17.5	153.3

	Pollutant					
	PM*	PM10*	SO2	NOx	VOC	CO
Emission Factor in lb/MMCF	1.9	7.6	0.6	100.0 **see below	5.5	84.0
Potential Emission in tons/yr	0.1	0.6	0.0	7.7	0.4	6.4

*PM emission factor is filterable PM only. PM10 emission factor is filterable and condensable PM10 combined.
**Emission Factors for NOx: Uncontrolled = 100, Low NOx Burner = 50, Low NOx Burners/Flue gas recirculation = 32

Methodology

All emission factors are based on normal firing.
MMBtu = 1,000,000 Btu
MMCF = 1,000,000 Cubic Feet of Gas

Potential Throughput (MMCF) = Heat Input Capacity (MMBtu/hr) x 8,760 hrs/yr x 1 MMCF/1,000 MMBtu
Emission Factors are from AP 42, Chapter 1.4, Tables 1.4-1, 1.4-2, 1.4-3, SCC #1-02-006-02, 1-01-006-02, 1-03-006-02, and 1-03-006-03 (SUPPLEMENT D 3/98)
Emission (tons/yr) = Throughput (MMCF/yr) x Emission Factor (lb/MMCF)/2,000 lb/ton
Note: Check the applicable rules and test methods for PM and PM10 when using the above emission factors to confirm that the correct factor is used (i.e., condensable included/not included).

Appendix A: Emissions Calculations
Natural Gas Combustion Only
MM BTU/HR <100
Small Industrial Boiler
HAPs Emissions

Company Name:
Address City IN Zip:
CP:
Plt ID:
Reviewer:
Date:

HAPs - Organics

	Benzene	Dichlorobenzene	Formaldehyde	Hexane	Toluene
Emission Factor in lb/MMcf	2.1E-03	1.2E-03	7.5E-02	1.8E+00	3.4E-03
Potential Emission in tons/yr	1.610E-04	9.198E-05	5.749E-03	1.380E-01	2.606E-04

HAPs - Metals

	Lead	Cadmium	Chromium	Manganese	Nickel
Emission Factor in lb/MMcf	5.0E-04	1.1E-03	1.4E-03	3.8E-04	2.1E-03
Potential Emission in tons/yr	3.833E-05	8.432E-05	1.073E-04	2.913E-05	1.610E-04

Methodology is the same as page 1.

The five highest organic and metal HAPs emission factors are provided above.
Additional HAPs emission factors are available in AP-42, Chapter 1.4.